

Re: Questions from Barry, Monday 6-13-2011

Sabrina Forrest to: Barry_Hayhurst

06/15/2011 05:16 PM

From: Sabrina Forrest/R8/USEPA/US

To: Barry_Hayhurst@URSCorp.com

Cc: Megan_Adamczyk@URSCorp.com, kncj@sbcglobal.net, chuck_baker@urscorp.com

Katharine and I spoke about your questions today in preparation for tomorrow's call and I summarized the high points below in bold. If I messed up any points, Katharine and BJ will correct me tomorrow.

I apologize for the delay in getting this to you in time for preview before tomorrow. I have included Megan so that she understands the HRS-related issues too.

Sincerely,

Sabrina Forrest
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Barry_Hayhurst---06/13/2011 03:06:23 PM---Here are some tentative questions I have for the experts Questions:

From: Barry_Hayhurst@URSCorp.com

To: Sabrina Forrest/R8/USEPA/US@EPA

Date: 06/13/2011 03:06 PM

Subject: Questions from Barry, Monday 6-13-2011

Here are some tentative questions I have for the experts

Questions:

Sources:

1. Small (sometime very small mountain creeks) drain into Cement Creek all down the drainage. Should these be counted as a source or the mine waste rock-tailings-adit discharge as the source. There are currently no documented targets on any of these small feeder streams. This is a conceptual issue for me---- how to depict these multiple side streams in a data table. **Answer: Adit where emerges from the ground is a source and its PPE is where the source hits perennial water. When hits ground, the water is either perennial and becomes part of SW pathway, e.g., American Tunnel, Mogul and GK7 level drainages. If the drainage is intermittent, then it becomes part of overland flow and the PPE moves to the point where water enters the SW body, e.g., Grand Mogul seep from toe of waste rock pile is the source, the overland flow is the meandering portion, and the PPE is where the water enters Cement Creek. START will need to clearly identify and describe in text and on maps, the PPEs, the surface water bodies (perhaps just name mine water bodies as American Tunnel drainage, Gold King 7 level drainage and Mogul drainage) or the overland flow pathway from each pile to the applicable perennial surface water body. For the data table, that is up to us to figure out how best to present data as you move from your upstream to downstream locations. I do want to see all the side flows presented.**

Later, for the HRS Doc Rcd, you will focus on the data that supports the background locations, the Hazardous Substances associated with the Source, the Other Possible Sources (we may have no data for those), and then the Pathway-specific Release Sample data table(s).

2. How important is documenting any type of engineered control on any of the sources? **Go back to Table 4-2 in the HRS Rule for SW pathway and be sure to use the same language as presented in that. It is important if it helps define the Containment value; I believe that our discharges have no containment and evidence of migration exists, therefore 10. If you have a question on specific source areas' containment, we can talk more about that with CSC.**

Other sources sampled = waste rock piles (source type: Piles); I don't recall there being containment features on these, but I could be wrong.

Surface Water Pathway--surface water samples:

1. As I understand the scenario as we are going for two different targets; wetlands and sensitive environments (**Barry, these need identified first; not sure if we have them. May need delineation by a wetland expert to be done**), and an adjacent or nearby fisherman. **With the fisherman statement, I think you are confused about what is getting evaluated. We look at the fishery and food chain individual (a fish) as the target. Take a look at the HRS guidance manual bottom of page 294 and how fishery is defined (not in Rule). Essentially we are trying to get at how exposed is the most impacted fish in the fishery? This is the Food Chain Individual = Nearest Indiv for other pathways to follow similar concepts for other pathways.** For the surface water samples I am using the SCDM Environmental Acute and SCDM Environmental Chronic benchmarks. Are these the appropriate benchmarks for wetlands and sensitive environments? **These are appropriate if you are going to score Level I and do the hardness-based conversions. It is not necessary; we should be able to use Level II and not bother with benchmarks.** Is there a more logical choice for a benchmark and do I need a third for the "adjacent or nearby fisherman"? **"adjacent or nearby fisherman" is not what we are evaluating; we are interested in the Food Chain Individual, the fish. I don't understand how the MCLs fit into this scenario? MCLs don't fit here - they only apply to drinking water targets; intakes or wells.**

2. I have elevated (3X) readings in surface water of cadmium, with copper, zinc, lead, and aluminum in the upper half of the drainage. There are no fish present or drinking water users, just wetlands and sensitive environments. Where do samples need to come from to count the streamside wetland (specifically within the

wetland or bracketing the wetland?)" **Answered in Rule Env Threat as long as wetland is contiguous to the water body - that is where delineation comes in. We may need to contract out to someone to do actual Guidance Manual "Wetland Expert" is A-31 of GM if target score critical for listing.**

3. Currently there are no USDOJ Wetlands Inventory Maps prepared for the upper Cement Creek drainage where the 3X background contamination is documented. Maps exist north and south of the Cement Creek area. The current wetlands areas were sketched on the sample map by a START GIS person as their interpretation gleaned from an aerial photograph. It is my understanding that I would need to go to the potential wetlands, dig a pit and do a soil profile to document the presence of a wetland and then map the aerial extent of the wetland. This documentation would serve as a reference in lieu of a USDOJ wetlands inventory map. Would this be the correct way to document wetlands in upper Cement Creek? **GIS interpretation won't stand up. Will need Delineation by "wetland expert" needed. See USFWS wetlands data mapper too.**

4. I'm not sure I completely understand the nearby or adjacent fisherman scenario. **Document fisheries within TDL. Same as above; get 20 if have OR to SW with subsBCF>=500 with fishery within 15 TDL. Is it, or would it be a fishery, if not for the contamination due to the "site."**

Surface Water Pathway--sediment samples:

1. The sediment samples show sporadic elevated concentrations (3X background, > benchmarks) of arsenic, silver, zinc, and barium. Since the only benchmarks using mg/Kg are SCDM soil exposure (**not applicable, this is for soil or residential property that fits resident indiv. defn in SE pathway**) and SCDM Human Food Chain (**not applicable, this is for fish tissue only**) I have used those two benchmarks. Neither of these benchmarks seem applicable to the wetlands but perhaps to the nearby adjacent fisherman? Are these the appropriate (and perhaps only available benchmarks?). Is there another benchmark I should be using. **Don't need to bother if using Level II.**

Again, do the sediment samples need to be located within a wetland to count that wetland or do the samples merely need to bracket the wetland? **Barry, as long as wetland contiguous to SW body, we can use the SW samples and not bother with sediment samples. This of course needs documented.**

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06/13/2011 12:47 PM

To Katharine Lima <kncj@sbcglobal.net>
cc Barry_Hayhurst@urscorp.com, Myers.Robert@epamail.epa.gov
Subject Re: availability for a call this week?
t

As for BJ, I don't know; depends on Barry's questions. We shall see...

Sincerely,

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From: Katharine Lima <kncj@sbcglobal.net>
To: Sabrina Forrest/R8/USEPA/US@EPA
Cc: Robert Myers/DC/USEPA/US@EPA, Barry_Hayhurst@urscorp.com
Date: 06/13/2011 11:43 AM
Subject: Re: availability for a call this week?

No problem - I'm pretty open this week. Would you need BJ on the call as well?

Katharine Lima
Environmental Scientist
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--- On Mon, 6/13/11, Forrest.Sabrina@epamail.epa.gov
<Forrest.Sabrina@epamail.epa.gov> wrote:

From: Forrest.Sabrina@epamail.epa.gov <Forrest.Sabrina@epamail.epa.gov>
Subject: availability for a call this week?
To: kncj@sbcglobal.net
Cc: Myers.Robert@epamail.epa.gov, Barry_Hayhurst@urscorp.com
Date: Monday, June 13, 2011, 12:19 PM

Katharine, If START has some more questions to put forward this week with the goal of finalizing their Quickscore(s) this week, do you have time for a call with me and START member, Barry Hayhurst?

Sincerely,

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